

**ABSTRACT**

A method and arrangement according to the invention selects the modulation and coding scheme MCS on a non-power-controlled downlink shared channel (DSCH) based on the amount of transmit power allocated to the downlink dedicated physical channel (DPCH) corresponding to the mobile station currently using the DSCH. Each mobile station in the system that takes part in sharing the DSCH has access to one associated DPCH. The DSCH is shared between the users in some way, e.g. in a time division fashion, wherein one user at a time uses the resources, and is not power controlled by any of the users. In a preferred embodiment, the procedure of selecting an appropriate modulation and coding scheme MCS for the DSCH as a function of the power level on the DPCH associated with the user currently using the DSCH is repeated each time the transmitted power of the associated DPCH changes.

(Publication figure: Figure 1)